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TITLE: SEMICONDUCTOR DEVICE

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ABSTRACT:

PURPOSE: To prevent hillocks from occurring as well as prevent junction leak failure from occurring by constituting a coating layer of boride containing boron and metal.

CONSTITUTION: A field oxide film 33 and a gate insulation film 37 are formed on a p-type Si substrate 31 wherein ions 51 are implanted into the substrate 31 from the film 37 to have polysilicon 39a deposited and to have phosphorus doped by diffusion so as to obtain a gate electrode 39 by patterning the silicon 39a in a specific gate electrode shape. Then, with the electrode 39 and the film 33 used as a mask, a specific dosage of As<SP>+</SP> is implanted into the substrate 31 with specific energy, and heat treatment is performed to obtain an N-type diffusion layer. A BPSG film is formed on an entire face of the

substrate 31 wherein a contact hole 41a is formed at a specific part thereon so that a thin film 43 for metal wiring layer and a thin film 45 for coating layer are formed inside the hole 41a and on an intermediate insulation layer 41. Then the films 43, 45 are patterned in a specific shape to obtain wiring 47 comprising the metal wiring layer 43 and the coating layer 45.

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